



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We make Indiana a cleaner, healthier place to live.

Frank O'Bannon
Governor

Lori F. Kaplan
Commissioner

August 5, 2003

100 North Senate Avenue
P. O. Box 6015
Indianapolis, Indiana 46206-6015
(317) 232-8603
(800) 451-6027
www.IN.gov/idem

TO: Interested Parties / Applicant

RE: LNP Engineering Plastics, Inc. 005-17704-00049

FROM: Paul Dubenetzky
Chief, Permits Branch
Office of Air Quality

Notice of Decision: Registration

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to IC 4-21.5-3-4 (d) this order is effective when it is served. When served by U.S. mail, the order is effective three (3) calendar days from the mailing of this notice pursuant to IC 4-21.5-3-2(e).

If you wish to challenge this decision, IC 4-21.5-3-7 require that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, ISTA Building, 150 W. Market Street, Suite 618, Indianapolis, IN 46204, **within (18) eighteen days of the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

- (1) the date the document is delivered to the Office of Environmental Adjudication (OEA);
- (2) the date of the postmark on the envelope containing the document, if the document is mailed to OEA by U.S. mail; or
- (3) the date on which the document is deposited with a private carrier, as shown by receipt issued by the carrier, if the document is sent to the OEA by private carrier.

The petition must include facts demonstrating that you are either the applicant, a person aggrieved or adversely affected by the decision or otherwise entitled to review by law. Please identify the permit, decision, or other order for which you seek review by permit number, name of the applicant, location, date of this notice and all of the following:

- (1) the name and address of the person making the request;
- (b) the interest of the person making the request;
- (c) identification of any persons represented by the person making the request;
- (4) the reasons, with particularity, for the request;
- (5) the issues, with particularity, proposed for consideration at any hearing; and
- (6) identification of the terms and conditions which, in the judgment of the person making the request, would be appropriate in the case in question to satisfy the requirements of the law governing documents of the type issued by the Commissioner.

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178. Callers from within Indiana may call toll-free at 1-800-451-6027, ext. 3-0178.

Enclosure

REGIS.wpd 8/21/02



Governor

Lori F. Kaplan
Commissioner

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We make Indiana a cleaner, healthier place to live.

100 North Senate Avenue
P. O. Box 6015
Indianapolis, Indiana 46206-

6015
August 6, 2003

(317) 232-8603
(800) 451-6027
www.state.in.us/idem

Mr. Christopher Miller, Plant Engineer
LNP Engineering Plastics, Inc.
945 S. Marr Road
Columbus, Indiana 47201

Re: Registered Construction and Operation Status,
005-17704-00049

Dear Mr. Miller:

The application from LNP Engineering Plastics, Inc., received on April 1, 2002 and the additional information received September 23, 2002, December 19, 2002 and July 15, 2003 have been reviewed. Based on the data submitted and the provisions in 326 IAC 2-5.5, it has been determined that the following fiber filled plastics manufacturing plant, located at 945 S. Marr Road, Columbus, Indiana, 47201 is classified as registered:

- (a) Four (4) long fiber filled extruded thermoplastic manufacturing lines, including:
 - (1) Line 71, constructed in 1994, having a maximum production rate of 1,000 pounds of product per hour, with emissions of particulate matter controlled using a dust collector.
 - (2) Line 72, constructed in 1995, having a maximum production rate of 1,000 pounds of product per hour, with emissions of particulate matter controlled using a dust collector.
 - (3) Line 73, constructed in 1998, having a maximum production rate of 2,000 pounds of product per hour, with emissions of particulate matter controlled using a dust collector.
 - (4) Line 74, constructed in 2000, having a maximum throughput of 1,700 pounds of product per hour, with emissions of particulate matter controlled using a dust collector.
- (b) Six (6) short fiber filled extruded thermoplastic manufacturing lines, including:
 - (1) Line 81, constructed in 1989, having a maximum production rate of 2,000 pounds of product per hour, emissions of particulate matter controlled using a dust collector.
 - (2) Line 82, constructed in 1989, having a maximum production rate of 2,000 pounds of product per hour, with emissions of particulate matter controlled using a dust collector.
 - (3) Line 84, constructed in 2000, having a maximum production rate of 200 pounds per hour, with emissions of particulate matter controlled using a dust collector.
 - (4) Line 90, constructed in January 2003, having a maximum production rate of 1,800 pounds per hour, with emissions of particulate matter controlled by a dust collector.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We make Indiana a cleaner, healthier place to live.

Frank O'Bannon
Governor

Lori F. Kaplan
Commissioner

100 North Senate Avenue
P. O. Box 6015
Indianapolis, Indiana 46206-

6015
August 6, 2003

(317) 232-8603
(800) 451-6027
www.state.in.us/idem

- (5) Line 91, constructed in 1994, having a maximum production rate of 2,000 pounds per hour, with emissions of particulate matter controlled by a dust collector.

- (6) Line 92, constructed in 1999, having a maximum production rate of 3,000 pounds of product per hour, with emissions of particulate matter controlled by a dust collector.
- (c) Pneumatic conveyance systems used to transfer raw material, intermediates, and finished products between silos, storage bins and hoppers. The system uses a series of cyclones, filters and dust collectors, which collect the transferred material and prevent dust entering the vacuum pumps.
- (d) One (1) color pigment blending room, constructed in 2002, having a maximum production rate of 237 pounds per hour. Emissions of particulate matter are controlled using a dust collector.
- (e) One (1) molding room, constructed in 1994, consisting of two (2) molding units, identified as QC1 and QC2. Each molding unit has a maximum throughput of 1.5 pounds of product per hour.
- (f) One (1) research and development line, constructed in 1998, consisting of a feeder, hopper, extruder, die block, cooling bath, and pelletizer, with a maximum production capacity 300 pounds of product per hour. Emissions from these units are exhausted at stacks RD1 and RD2.
- (g) One (1) long-fiber product research and development lab constructed in January 2003.
- (h) Three (3) natural gas-fired pyrolysis cleaning ovens (identified as Units G1, and G2), constructed in 1994, 1997, and 1998 respectively, having a maximum heat input capacity of 0.37, 1.5, and 0.55 MMBtu per hour, respectively.
- (i) Natural gas-fired heaters and ovens having a combined heat input capacity of 31.35 MMBtu per hour.

The following conditions shall be applicable:

- (a) Pursuant to 326 IAC 5-1-2 (Opacity Limitations) except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following:
 - (1) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
 - (2) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of 15 minutes (60 readings) in a 6-hour period as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor in a six (6) hour period.
- (b) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the long fiber filled extruded thermoplastic manufacturing lines (Lines 71, 72, 73, and 74), short fiber filled extruded thermoplastic manufacturing lines (Lines 81, 82, 84, 90, 91, and 92), color pigment blending room, pneumatic conveyance systems, and research and development line shall not exceed the pound per hour emission rates shown in the following table:

Process	Process Weight (lbs/hour)	Process Weight (tons/hour)	Particulate Limitation (lbs/hour)
Line 71 (including associated pneumatic conveyance system)	1,000	0.5	2.6
Line 72 (including associated pneumatic conveyance system)	1,000	0.5	2.6
Line 73 (including associated pneumatic conveyance system)	2,000	1.0	4.1
Line 74 (including associated pneumatic conveyance system)	1,700	0.85	3.7
Line 81 (including associated pneumatic conveyance system)	2,000	1.0	4.1
Line 82 (including associated pneumatic conveyance system)	2,000	1.0	4.1
Line 84 (including associated pneumatic conveyance system)	200	0.10	0.88
Line 90 (including associated pneumatic conveyance system)	1,800	0.9	3.8
Line 91 (including associated pneumatic conveyance system)	2,000	1.0	4.1
Line 92 (including associated pneumatic conveyance system)	3,000	1.5	5.4
Color Pigment Blending Room	237	0.12	0.99
Research and Development Line	300	0.15	1.2

The particulate emission limits were calculated as follows:

Interpolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour; and} \\ P = \text{process weight rate in tons per hour}$$

- (c) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from molders QC-1 and QC-2, which each have maximum process weight rates less than 100 pounds per hour, shall not exceed 0.551 pounds per hour.
- (d) Pursuant to 326 IAC 4-2, the pyrolysis cleaning ovens (identified as units F, G1 and G2) shall:
 - (1) Consist of primary and secondary chambers or the equivalent;
 - (2) Be equipped with a primary burner unless burning wood products;

- (3) Comply with 326 IAC 5-1 and 326 IAC 2;
- (4) Be maintained, operated, and burn waste in accordance with the manufacturer's specifications or an operation and maintenance plan as specified in 326 IAC 4-2-2; and
- (5) Not emit particulate matter in excess of five-tenths (0.5) pounds of particulate matter per one thousand (1,000) pounds of dry exhaust gas under standard conditions corrected to fifty percent (50%) excess air.
- (6) If any of the requirements of (d)(1) through (d)(5) above are not met, the Permittee shall stop charging the incinerator until adjustments are made that address the underlying cause of the deviation.

The owner or operator of the incinerator must make the manufacturer's specifications or the operation and maintenance plan available to the department upon request.

This registration is a revised registration issued to this source. The source may operate according to 326 IAC 2-5.5.

An authorized individual shall provide an annual notice to the Office of Air Quality that the source is in operation and in compliance with this registration pursuant to 326 IAC 2-5.5-4(a)(3). The annual notice shall be submitted to:

**Compliance Branch
Office of Air Quality
100 North Senate Avenue
P.O. Box 6015
Indianapolis, IN 46206-6015**

no later than March 1 of each year, with the annual notice being submitted in the format attached.

An application or notification shall be submitted in accordance with 326 IAC 2 to the Office of Air Quality (OAQ) if the source proposes to construct new emission units, modify existing emission units, or otherwise modify the source.

Pursuant to Contract No. A305-0-00-36, IDEM, OAQ has assigned the processing of this application to Eastern Research Group, Inc., (ERG). Therefore, questions should be directed to Amanda Baynham, ERG, 1600 Perimeter Park Drive, Morrisville, North Carolina 27560, or call (919) 468-7910 to speak directly to Ms. Baynham. Questions may also be directed to Duane Van Laningham at IDEM, OAQ, 100 North Senate Avenue, P.O. Box 6015, Indianapolis, Indiana, 46206-6015, or call (800) 451-6027, press 0 and ask for Duane Van Laningham, or extension 3-6878, or dial (317) 233-6878.

Sincerely,
Original signed by Paul Dubenetzky

Paul Dubenetzky, Chief
Permits Branch
Office of Air Quality

ERG/AAB

cc: File - Bartholomew County
Air Compliance - D.J. Knotts
Permit Tracking - Sara Cloe
Technical Support and Modeling - Michele Boner
Compliance Branch - Karen Nowak

Registration

This form should be used to comply with the notification requirements under 326 IAC 2-5.5-4(a)(3)

Company Name:	LNP Engineering Plastics, Inc.
Address:	945 S. Marr Road
City:	Columbus, Indiana 47201
Authorized individual:	Mr. Christopher Miller
Phone #:	812-348-0229
Registration #:	005-17704-00049

I hereby certify that LNP Engineering Plastics, Inc. is still in operation and is in compliance with the requirements of Registration 005-17704-00049.

Name (typed):
Title:
Signature:
Date:

Indiana Department of Environmental Management Office of Air Quality

Technical Support Document (TSD) for a Registration

Source Background and Description

Source Name: LNP Engineering Plastics, Inc.
Source Location: 945 S. Marr Road, Columbus, Indiana 47201
County: Bartholomew
SIC Code: 3087
Operation Permit No.: 005-17704-00049
Permit Reviewer: ERG/AAB

The Office of Air Quality (OAQ) has reviewed an application from LNP Engineering Plastics, Inc. relating to the operation of a fiber filled plastic pellet manufacturing plant.

Permitted Emission Units and Pollution Control Equipment

The source consists of the following permitted emission units and pollution control devices:

- (a) Four (4) long fiber filled extruded thermoplastic manufacturing lines, including:
 - (1) Line 71, constructed in 1994, having a maximum production rate of 1,000 pounds of product per hour, with emissions of particulate matter controlled using a dust collector.
 - (2) Line 72, constructed in 1995, having a maximum production rate of 1,000 pounds of product per hour, with emissions of particulate matter controlled using a dust collector.
 - (3) Line 73, constructed in 1998, having a maximum production rate of 2,000 pounds of product per hour, with emissions of particulate matter controlled using a dust collector.
 - (4) Line 74, constructed in 2000, having a maximum throughput of 1,700 pounds of product per hour, with emissions of particulate matter controlled using a dust collector.
- (b) Six (6) short fiber filled extruded thermoplastic manufacturing lines, including:
 - (1) Line 81, constructed in 1989, having a maximum production rate of 2,000 pounds of product per hour, emissions of particulate matter controlled using a dust collector.
 - (2) Line 82, constructed in 1989, having a maximum production rate of 2,000 pounds of product per hour, with emissions of particulate matter controlled using a dust collector.

- (3) Line 84, constructed in 2002, having a maximum production rate of 200 pounds per hour, with emissions of particulate matter controlled using a dust collector.
 - (4) Line 90, constructed in January 2003, having a maximum production rate of 1,800 pounds per hour, with emissions of particulate matter controlled by a dust collector.
 - (5) Line 91, constructed in 1994, having a maximum production rate of 2,000 pounds per hour, with emissions of particulate matter controlled by a dust collector.
 - (6) Line 92, constructed in 1999, having a maximum production rate of 3,000 pounds of product per hour, with emissions of particulate matter controlled by a dust collector.
- (c) Pneumatic conveyance systems used to transfer raw material, intermediates, and finished products between silos, storage bins and hoppers. The system uses a series of cyclones, filters and dust collectors, which collect the transferred material and prevent dust entering the vacuum pumps.
 - (d) One (1) color pigment blending room, constructed in 2002, having a maximum production rate of 237 pounds per hour. Emissions of particulate matter are controlled using a dust collector.
 - (e) One (1) molding room, constructed in 1994, consisting of two (2) molding units, identified as QC1 and QC2. Each molding unit has a maximum throughput of 1.5 pounds of product per hour.
 - (f) One (1) research and development line, constructed in 1998, consisting of a feeder, hopper, extruder, die block, cooling bath, and pelletizer, with a maximum production capacity 300 pounds of product per hour. Emissions from these units are exhausted at stacks RD1 and RD2.
 - (g) One (1) long-fiber product research and development lab constructed in January 2003.
 - (h) Three (3) natural gas-fired pyrolysis cleaning ovens (identified as Units F, G1, and G2), constructed in 1994, 1997, and 1998, respectively, having a maximum heat input capacity of 0.37, 1.5, and 0.55 MMBtu per hour.
 - (i) Natural gas-fired heaters and ovens having a combined heat input capacity of 31.35 MMBtu per hour.

Unpermitted Emission Units and Pollution Control Equipment

There are no unpermitted facilities operating at this source during this review process.

New Emission Units and Pollution Control Equipment Receiving Prior Approval

There are no new construction activities included in this permit.

Existing Approvals

The source has been operating under previous approvals including, but not limited to, the following:

- (a) Exemption issued September 2, 1989;

- (b) Exemption 005-2670-00049, issued April 13, 1993;
- (c) Registration 005-3552-00049, issued March 30, 1994;
- (d) Exemption 005-3823-00049, issued August 3, 1994;
- (e) Registration 005-5009-00049, issued December 7, 1995;
- (f) Exemption 005-8274-00049, issued April 7, 1997;
- (g) Registration 005-9519-00049, issued April 24, 1998;
- (h) Exemption 005-9838-00049, issued July 23, 1998; and
- (i) Registration 005-15779-00049, issued July 3, 2003.

All conditions from previous approvals have been incorporated into this permit.

Air Pollution Control Justification as an Integral Part of the Process

The company has submitted the following justification such that the cyclone and filter be considered as an integral part of the pneumatic conveyance systems:

The process operations at the plant include pneumatic conveying to move pellets and powders from the storage areas to the processing lines. The nature of this operation is such that equipment typically viewed as air pollution control equipment is, for these operations, necessary to the proper functioning of the equipment, and therefore integral to the process units. The pneumatic transfer system works using a vacuum pump, which pulls air through the storage bin and associated conduits to a cyclone and filter, which are arranged in series. The cyclone is used to collect the transferred material, while the filter protects the vacuum pump from damage by fine particles that may be entrained in the air stream. Since the cyclone and filter make the transfer of the material possible and protect the vacuum pump from damage, they are considered integral to the process.

IDEM, OAQ has evaluated the justifications and agreed that the air pollution control equipment described above will be considered as an integral part of the pneumatic conveyance systems. Therefore, the permitting level will be determined using the potential to emit after the air pollution control equipment. Operating conditions in the proposed permit will specify that this air pollution control equipment shall operate at all times when the pneumatic conveyance systems are in operation.

Enforcement Issue

- (a) IDEM is aware that equipment has been operated prior to receipt of the proper permit.
- (b) IDEM is reviewing this matter and will take appropriate action. This proposed permit is intended to satisfy the requirements of the construction permit rules.

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (°F)
C2	Line 71 - Dryer	58	1	2,400	180

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (°F)
L1	Line 71 - Long Fiber Pultrusion Line	58.5	1	2,000	120
C1	Line 72 - Dryer	58	1	2,400	180
L2	Line 72 - Die Block	58	1.2	5,500	110
L3	Line 73 - Pultrusion Line	58	2	10,000	110
L4	Line 74 -Long Fiber Pultrusion Line	45	2	9,000	110
A	Line 81 - Extruder	30	1.2	3,500	Between 70 and 90
B	Line 82 - Extruder	30	1.2	3,500	Between 70 and 90
M	Line 84 - Extruder	40	1	4,000	150
N	Line 84 - Vacuum Pump Exhaust	30	0.17	50	110
TO	Line 90	30	1.5	9,000	110
T1	Line 91 - Twin Screw Compounding	58.5	1.5	3,500	120
G1	Pyrolysis Cleaning Oven	NA	NA	NA	NA
T2	Line 92 - Twin Screw Compounding	58	1.5	7,000	110
G2	0.29MMBtu/hour Parts Oven	58	1.5	NA	180
F	Pyrolysis Cleaning Oven	25	1	1,200	100
AA	Exhaust Fan for Quality Control Molding Machines	40	1.5	1,600	110
RD1	R & D Extruder	50	2	4,000	110
RD2	R & D Molder	50	1.3	800	110
AB	Ventilation for toll cleaning area	12	1	500	Ambient

NA - Information not available.

Recommendation

The staff recommends to the Commissioner that the operation be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on July 15, 2003.

Emission Calculations

See Appendix A of this document for detailed emissions calculations (Pages 1 through 8).

Potential To Emit of Source Before Controls

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source or emissions unit to emit any air pollutant under its physical and operational

design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA, the department, or the appropriate local air pollution control agency."

Pollutant	Potential To Emit (tons/year)
PM	17.4
PM-10	17.4
SO ₂	0.07
VOC	12.9
CO	9.7
NO _x	11.5

HAP's	Potential To Emit (tons/year)
Acetaldehyde	0.005
Acrolein	0.001
Acrylic Acid	0.005
Formaldehyde	0.006
Methyl ethyl ketone	0.003
Propionaldehyde	0.001
TOTAL	0.021

- (a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of criteria pollutants is less than 100 tons per year. Therefore, the source is not subject to the provisions of 326 IAC 2-7.
- (b) The potential to emit (as defined in 326 IAC 2-7-1(29)) of all criteria pollutants is less than 25 tons per year. Therefore, the source is not subject to the provisions of 326 IAC 2-6.1.
- (c) The potential to emit (as defined in 326 IAC 2-7-1(29)) of PM, PM₁₀, VOC and NO_x are greater than levels listed in 326 IAC 2-1.1-3(d)(1), therefore the source is subject to the provisions of 326 IAC 2-5.5.1. This source will therefore, be issued a Registration.
- (d) The potential to emit (as defined in 326 IAC 2-7-1(29)) of any single HAP is less than ten (10) tons per year and/or the potential to emit (as defined in 326 IAC 2-7-1(29)) of a combination of HAPs is less than twenty-five (25) tons per year. Therefore, the source is not subject to the provisions of 326 IAC 2-7.
- (e) Fugitive Emissions
Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are not counted toward determination of PSD and Emission Offset applicability.

County Attainment Status

The source is located in Bartholomew County.

Pollutant	Status
PM-10	Attainment
SO ₂	Attainment
NO ₂	Attainment
Ozone	Attainment
CO	Attainment
Lead	Attainment

- (a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone

standards. Bartholomew County has been designated as attainment or unclassifiable for ozone. Therefore, VOC emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

- (b) Bartholomew County has been classified as attainment or unclassifiable for all other pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.
- (c) Fugitive Emissions
Since this type of operation is not one of the 28 listed source categories under 326 IAC 2-2 or 326 IAC 2-3 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are not counted toward determination of PSD and Emission Offset applicability.

Source Status

Existing Source PSD, Part 70 or FESOP Definition (emissions after controls, based on 8,760 hours of operation per year at rated capacity and/ or as otherwise limited):

Pollutant	Emissions (ton/yr)
PM	17.4
PM10	17.4
SO ₂	0.07
VOC	12.9
CO	9.7
NO _x	11.5

- (a) This existing source is not a major stationary source because no attainment regulated pollutant is emitted at a rate of 250 tons per year or more, and it is not in one of the 28 listed source categories.
- (b) These emissions were based on the calculations provided in Appendix A.

Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)

This existing source is not subject to the Part 70 Permit requirements because the potential to emit (PTE) of:

- (a) each criteria pollutant is less than 100 tons per year,
- (b) a single hazardous air pollutant (HAP) is less than 10 tons per year, and
- (c) any combination of HAPs is less than 25 tons/year.

This status is based on all the air approvals issued to the source and the emission calculations provided in Appendix A.

Federal Rule Applicability

- (a) This source is not subject to the requirements of 40 CFR 63, Subpart U - National Emission Standards for Hazardous Air Pollutant Emissions: Group I Polymers and Resins (326 IAC 20), because this source is not a major source of hazardous air pollutants and does not produce elastomer products.

- (b) This source is not subject to the requirements of 40 CFR 63, Subpart W National Emission Standards for Hazardous Air Pollutants for Epoxy Resins Production and Non-Nylon Polyamides Production (326 IAC 20), because this source is not a major source of hazardous air pollutants and does not produce epoxy resins or non-nylon polyamides.
- (c) Although this source handles thermoplastic materials, it is not subject to the requirements of 40 CFR 63, Subpart JJJ - National Emission Standards for Hazardous Air Pollutant Emissions: Group IV Polymers and Resins (326 IAC 20), because this source is not a major source of hazardous air pollutants and only performs finishing processes, which are specifically exempt from the requirements of this rule under 40 CFR 63.1310(d).

State Rule Applicability - Entire Source

326 IAC 2-6 (Emission Reporting)

This source is located in Bartholomew County and the potential to emit CO, VOC, NO_x, PM₁₀, and SO₂ is less than one hundred (100) tons per year. Therefore, 326 IAC 2-6 does not apply.

326 IAC 5-1 (Opacity Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

326 IAC 2-4.1 (New Source Toxics Control)

Although constructed after July 27, 1997, the extruded thermoplastic manufacturing lines 73, 74, 84, 90 and 92, color pigment blending room, and the research and development line have potential HAP emissions that are less than 10 tons per year for a single HAP and less than 25 tons per year for combined HAPs. Therefore, 326 IAC 2-4.1 does not apply to these units. All other processes at this source were constructed prior to the July 27, 1997 applicability date and are not subject to this rule.

State Rule Applicability - Long Fiber Filled Extruded Thermoplastic Manufacturing Lines (Lines 71, 72, 73, and 74), Short Fiber Filled Extruded Thermoplastic Manufacturing Lines (Lines 81, 82, 84, 90, 91, and 92), Color Pigment Blending Room, Molding Room, Pneumatic Conveyance Systems, and Research and Development Line

326 IAC 8-1-6 (New Facilities General Reduction Requirements)

Although these units were constructed after January 1, 1980, the potential VOC emissions from each of these units is less than 25 tons per year; therefore, 326 IAC 8-1-6 is not applicable. Note that VOC emissions from this source arise only from the melting of polymers. Based on AP-42 data, this melting process releases minimal amounts of VOC (see AP-42, Chapter 6.6.4).

326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes)

- (a) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the long fiber filled extruded thermoplastic manufacturing lines (Lines 71, 72, 73, and 74), short fiber filled extruded thermoplastic manufacturing lines (Lines 81, 82, 84, 90, 91, and 92), color pigment blending room, pneumatic conveyance system, and research and development line shall not exceed the

pound per hour emission rates shown in the following table:

Process	Process Weight (lbs/hour)	Process Weight (tons/hour)	Particulate Limitation (lbs/hour)
Line 71 (including associated pneumatic conveyance system)	1,000	0.5	2.6
Line 72 (including associated pneumatic conveyance system)	1,000	0.5	2.6
Line 73 (including associated pneumatic conveyance system)	2,000	1.0	4.1
Line 74 (including associated pneumatic conveyance system)	1,700	0.85	3.7
Line 81 (including associated pneumatic conveyance system)	2,000	1.0	4.1
Line 82 (including associated pneumatic conveyance system)	2,000	1.0	4.1
Line 84 (including associated pneumatic conveyance system)	200	0.10	0.88
Line 90 (including associated pneumatic conveyance system)	1,800	0.9	3.8
Line 91 (including associated pneumatic conveyance system)	2,000	1.0	4.1
Line 92 (including associated pneumatic conveyance system)	3,000	1.5	5.4
Color Pigment Blending Room	237	0.12	0.99
Research and Development Line	300	0.15	1.2

The particulate emission limits were calculated as follows:

Interpolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour; and} \\ P = \text{process weight rate in tons per hour}$$

- (b) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from molders QC-1 and QC-2, which each have maximum process weight rates less than 100 pounds per hour, shall not exceed 0.551 pounds per hour.

State Rule Applicability - Pyrolysis Cleaning Ovens

326 IAC 4-2 (Incinerators)

The pyrolysis cleaning ovens are subject to the requirements of 326 IAC 4-2. The following conditions have been included in the registration.

Pursuant to 326 IAC 4-2, the pyrolysis cleaning ovens (identified as units F, G1 and G2) shall:

- (1) Consist of primary and secondary chambers or the equivalent;
- (2) Be equipped with a primary burner unless burning wood products;
- (3) Comply with 326 IAC 5-1 and 326 IAC 2;
- (4) Be maintained, operated, and burn waste in accordance with the manufacturer's specifications or an operation and maintenance plan as specified in 326 IAC 4-2-2(c); and
- (5) Not emit particulate matter in excess of five-tenths (0.5) pounds of particulate matter per one thousand (1,000) pounds of dry exhaust gas under standard conditions corrected to fifty percent (50%) excess air.
- (6) If any of the requirements of (1) through (5) above are not met, the Permittee shall stop charging the incinerator until adjustments are made that address the underlying cause of the deviation.

The owner or operator of the incinerator must make the manufacturer's specifications or the operation and maintenance plan available to the department upon request.

State Rule Applicability - Natural Gas Fired Heaters and Ovens

There are no State or Federal Rules specifically applicable to these units.

Conclusion

The operation of this fiber filled plastic pellet manufacturing plant shall be subject to the conditions of the attached proposed Registration 005-17704-00049.

Appendix A: Emissions Calculations**Particulate Emissions**

Company Name: LNP Engineering Plastics Inc.
Address City IN Zip: 945 S. Marr Road, Columbus, Indiana 47201
Registration: 005-17704
Plt ID: 005-00049
Reviewer: ERG/AAB
Date: 07/16/03

Emission Unit		Type of Material Handled	Throughput (lbs/hour)	Emission Factor (lbs/ton of Material) ⁽¹⁾⁽²⁾	PM/PM10 PTE (Tons/yr)	Integral Control Device
Resin Pellet Receiving	Large Silos	Resin Pellets	12,340	0.04	1.08E+00	No
	Feed Bins	Resin Pellets	12,340	Negligible		Yes
Subtotal					1.08	
Line 71	Storage Bin	Resin Pellets	650	Negligible		Yes
	Mixer	Resin Pellets	650	0.04	5.69E-02	No
	Feeder	Resin Pellets	650	0.04	5.69E-02	No
	Feed Hopper	Resin Pellets	650	0.04	5.69E-02	No
	Classifier	Finished Product	1,000	0.04	8.76E-02	No
	Storage Bin	Finished Product	1,000	Negligible		Yes
	Feed Out	Finished Product	1,000	0.04	8.76E-02	No
	Subtotal					0.3460
Line 72	Storage Bin	Resin Pellets	650	Negligible		Yes
	Mixer	Resin Pellets	650	0.04	5.69E-02	No
	Feeder	Resin Pellets	650	0.04	5.69E-02	No
	Feed Hopper	Resin Pellets	650	0.04	5.69E-02	No
	Classifier	Finished Product	1,000	0.04	8.76E-02	No
	Storage Bin	Finished Product	1,000	Negligible		Yes
	Feed Out	Finished Product	1,000	0.04	8.76E-02	No
	Subtotal					0.346
Line 73	Storage Bin	Resin Pellets	1,300	Negligible		Yes
	Mixer	Resin Pellets	1,300	0.04	1.14E-01	No
	Feeder	Resin Pellets	1,300	0.04	1.14E-01	No
	Feed Hopper	Resin Pellets	1,300	0.04	1.14E-01	No
	Deduster	Finished Product	2,000	0.04	1.75E-01	No
	Classifier	Finished Product	2,000	0.04	1.75E-01	No
	Storage Bin	Finished Product	2,000	Negligible		Yes
	Feed Out	Finished Product	2,000	0.04	1.75E-01	No
Subtotal					0.87	

See Page 6 for notes on emission factors and methodology.

**Appendix A: Emissions Calculations
Particulate Emissions**

Company Name: LNP Engineering Plastics Inc.
Address City IN Zip: 945 S. Marr Road, Columbus, Indiana 47201
Registration: 005-17704
Plt ID: 005-00049
Reviewer: ERG/AAB
Date: 07/16/03

Emission Unit		Type of Material Handled	Throughput (lbs/hour)	Emission Factor (lbs/ton of Material)*	PM/PM10 PTE (Tons/yr)	Integral Control Device
Line 74	Storage Bin	Resin Pellets	1,105	Negligible		Yes
	Mixer	Resin Pellets	1,105	0.04	9.68E-02	No
	Feeder	Resin Pellets	1,105	0.04	9.68E-02	No
	Feed Hopper	Resin Pellets	1,105	0.04	9.68E-02	No
	Deduster	Finished Product	1,700	0.04	1.49E-01	No
	Classifier	Finished Product	1,700	0.04	1.49E-01	No
	Storage Bin	Finished Product	1,700	Negligible		Yes
	Feed Out	Finished Product	1,700	0.04	1.49E-01	No
Subtotal					0.74	
Line 81	Storage Bin	Resin Pellets	540	Negligible		Yes
	Mixer	Resin Pellets	540	0.04	4.73E-02	No
	Mixer	Additives	460	0.19	1.91E-01	No
	Feeder	Resin Pellets	540	0.04	4.73E-02	No
	Feeder	Additives	460	0.19	1.91E-01	No
	Feed Hopper	Resin Pellets	540	0.04	4.73E-02	No
	Feed Hopper	Additives	460	0.19	1.91E-01	No
	Classifier	Finished Product	1,000	0.04	8.76E-02	No
	Catch Bin	Finished Product	1,000	0.04	8.76E-02	No
	Storage Bin	Finished Product	1,000	Negligible		Yes
	Feed Out	Finished Product	1,000	0.04	8.76E-02	No
Subtotal					0.98	
Line 82	Storage Bin	Resin Pellets	540	Negligible		Yes
	Mixer	Resin Pellets	540	0.04	4.73E-02	No
	Mixer	Additives	460	0.19	1.91E-01	No
	Feeder	Resin Pellets	540	0.04	4.73E-02	No
	Feeder	Additives	460	0.19	1.91E-01	No
	Feed Bin	Resin Pellets	540	0.04	4.73E-02	No
	Feed Bin	Additives	460	0.19	1.91E-01	No
	Classifier	Finished Product	1,000	0.04	8.76E-02	No
	Catch Bin	Finished Product	1,000	0.04	8.76E-02	No
	vibratory conveyor	Finished Product	1,000	0.04	8.76E-02	No
	Metal separator	Finished Product	1,000	0.04	8.76E-02	No
	Deduster	Finished Product	1,000	Negligible		Yes
	Feed Out	Finished Product	1,000	0.04	8.76E-02	No
Subtotal					1.15	

See Page 6 for notes on emission factors and methodology.

Appendix A: Emissions Calculations

Particulate Emissions

Company Name: LNP Engineering Plastics Inc.
Address City IN Zip: 945 S. Marr Road, Columbus, Indiana 47201
Registration: 005-17704
Plt ID: 005-00049
Reviewer: ERG/AAB
Date: 07/16/03

Emission Unit		Type of Material Handled	Throughput (lbs/hour)	Emission Factor (lbs/ton of Material)*	PM/PM10 PTE (Tons/yr)	Integral Control Device
Line 84	Mixer	Resin Pellets	108	Negligible		Yes
	Mixer	Additives	92	0.19	3.83E-02	No
	Feeder	Resin Pellets	108	0.04	9.46E-03	No
	Feeder	Additives	92	0.19	3.83E-02	No
	Feed Bin	Resin Pellets	108	0.04	9.46E-03	No
	Feed Bin	Additives	92	0.19	3.83E-02	No
	Classifier	Finished Product	200	0.04	1.75E-02	No
	Catch Bin	Finished Product	200	0.04	1.75E-02	No
	Storage Bin	Finished Product	200	Negligible		Yes
	Feed Out	Finished Product	200	0.04	1.75E-02	No
Subtotal					0.19	
Line 90	Storage Bin	Resin Pellets	210	Negligible		Yes
	Mixer	Resin Pellets	210	0.04	1.84E-02	No
	Mixer	Milled Resin	210	0.04	1.84E-02	No
	Feeder	Resin Pellets	420	0.04	3.68E-02	No
	Feed Bin	Additives	980	0.19	4.08E-01	No
	Feeder	Additives	980	0.19	4.08E-01	No
	Side Crammer	Additives	980	0.19	4.08E-01	No
	Feed Bin	Resin Pellets	420	0.04	3.68E-02	No
	Classifier	Finished Product	1,400	0.04	1.23E-01	No
	vibratory conveyor	Finished Product	1,400	0.04	1.23E-01	No
	metal separator	Finished Product	1,400	0.04	1.23E-01	No
	Catch Bin	Finished Product	1,400	0.04	1.23E-01	No
	Storage Bin	Finished Product	1,400	Negligible		Yes
	Feed Out	Finished Product	1,400	0.04	1.23E-01	No
Subtotal					1.95	
Line 91	Storage Bin	Resin Pellets	960	Negligible		Yes
	Mixer	Resin Pellets	960	0.04	8.41E-02	No
	Feeder	Resin Pellets	960	0.04	8.41E-02	No
	Feed Bin	Additives	640	0.19	2.66E-01	No
	Feeder	Additives	640	0.19	2.66E-01	No
	Feed Bin	Resin Pellets	960	0.04	8.41E-02	No
	Classifier	Finished Product	2,000	0.04	1.75E-01	No
	Catch Bin	Finished Product	2,000	0.04	1.75E-01	No
	Storage Bin	Finished Product	2,000	Negligible		Yes
	Feed Out	Finished Product	2,000	0.04	1.75E-01	No
Subtotal					1.31	

See Page 6 for notes on emission factors and methodology.

Appendix A: Emissions Calculations

Particulate Emissions

Company Name: LNP Engineering Plastics Inc.
Address City IN Zip: 945 S. Marr Road, Columbus, Indiana 47201
Registration: 005-17704
Plt ID: 005-00049
Reviewer: ERG/AAB
Date: 07/16/03

Emission Unit		Type of Material Handled	Throughput (lbs/hour)	Emission Factor (lbs/ton of Material)*	PM/PM10 PTE (Tons/yr)	Integral Control Device
Line 92	Storage Bin	Resin Pellets	480	Negligible		Yes
	Mixer	Resin Pellets	480	0.04	4.20E-02	No
	Feeder	Resin Pellets	480	0.04	4.20E-02	No
	Conveyor	Additives-Carbon Black Powder	120	25.6	6.73E+00	No
	Feeder	Additives	120	0.19	4.99E-02	No
	Feed Bin	Resin Pellets	480	0.04	4.20E-02	No
	Classifier	Finished Product	600	0.04	5.26E-02	No
	Catch Bin	Finished Product	600	0.04	5.26E-02	No
	Storage Bin	Finished Product	600	Negligible		Yes
	Feed Out	Finished Product	600	0.04	5.26E-02	No
Subtotal					7.06	
Mold Room	Molder 1	Resin Pellets	3.13	0.04	2.74E-04	
	Molder 2	Resin Pellets	3.13	0.04	2.74E-04	
	Molder 3	Resin Pellets	6.25	0.04	5.48E-04	
Subtotal					1.1E-03	
Research & Development	Pneumatic Conveyance	Resin Pellets	690	0.04	6.04E-02	
Color Blending	Weighing	Additives	300	0.19	1.25E-01	
	Mixing	Additives	300	0.19	1.25E-01	
	Staging	Additives	300	0.19	1.25E-01	
Subtotal					0.37	
Total					16.39	

(1) Emission factor for pellet conveyance is based on sieve analysis tests conducted by GE (LNP's parent company) using polycarbonate pellets. The emission factors derived from this data represent the most conservative estimate of PM/PM10 emissions. Baghouse collection data from the plant shows that 0.05 lbs of particulate material is collected from the transfer of 6,928.5 pounds of pellets (0.014 lbs of particulate per ton of material processed) using the pneumatic conveyance system. Note that the 0.04 lbs/ton emission factor is used for both pneumatic and gravity transfer. The source believes the PTE for gravity transfer of pellets is 0.003 lbs/ton of material transferred. This 0.0003 lbs/ton emission factor was calculated by multiplying the pneumatic transfer emission factor 0.04 lbs/ton by 0.0075 (the ratio of the emission factor for gravity transfer of fine materials (0.19 lbs/ton) and the emission factor for pneumatic transfer of fine materials (25.6 lbs/ton)). For the purposes of this Registration, the more conservative 0.04 lbs/ton emission factor has been used to calculate PTE for both pneumatic and gravity transfer of pellets.

(2) The emission factor for the gravity transfer of additive materials is based on the emission factor for urea bagging found in AP-42, Chapter 8.2, Table 8.2-1 (7/93). The source proposed this emission factor because the fine (dusty) materials are similar in composition to urea. This represents a worst case scenario and will overestimate particulate emissions since some of the additives are less dusty than urea. Note that a significant portion of the materials transferred using gravity are glass beads. For pneumatic transfer of additives, the emission factors are 25.6 lbs/ton of carbon black transferred and 0.11 lbs/ton of chopped glass transferred. These emission factors were developed by GE, because no emission factors for these activities could be found in AP-42 or other EPA sources.

Methodology:

PTE (tons/year) = throughput (lbs/hour) * 8760 hrs/yr * 1ton/2000lbs * emission factor (lbs/ton) * 1ton/2000lbs

Appendix A: Emission Calculations
Natural Gas Combustion In Heaters and Ovens

Company Name: LNP Engineering Plastics Inc.
Address City IN Zip: 945 S. Marr Road, Columbus, Indiana 47201
Registration: 005-17704
Pit ID: 005-00049
Reviewer: ERG/AAB
Date: 07/16/03

Heat Input Capacity
MMBtu/hr

Potential Throughput
MMCF/yr

31.4

274.6

Pollutant						
Emission Factor in lb/MMCF	PM*	PM10*	SO2	NO _x	VOC	CO
	7.6	7.6	0.6	100.0	5.5	84.0
				**see below		
Potential Emission in tons/yr						
	1.04	1.04	0.08	13.7	0.76	11.5

*PM emission factor is filterable PM only. PM10 emission factor is condensable and filterable PM10 combined.

**Emission Factors for NO_x: Uncontrolled = 100, Low NO_x Burner = 50, Low NO_x Burners/Flue gas recirculation = 32

Methodology

All Emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF - 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors from AP-42, Chapter 1.4, Tables 1.4-1, 1.4-2, and 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (AP-42 Supplement D 3/98)

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

See next page for HAPs emissions calculations.

Company Name: LNP Engineering Plastics Inc.
Address City IN Zip: 945 S. Marr Road, Columbus, Indiana 47201
Registration: 005-17704
Pit ID: 005-00049
Reviewer: ERG/AAB
Date: 07/16/03

HAPs - Organics

Emission Factor in lb/MMCF	Benzene 2.1E-03	Dichlorobenzene 1.2E-03	Formaldehyde 7.5E-02	Hexane 1.8E+00	Toluene 3.4E-03
Potential Emission in tons/yr	2.884E-04	1.648E-04	1.030E-02	2.472E-01	4.669E-04

HAPs - Metals

Emission Factor in lb/MMCF	Lead 5.0E-04	Cadmium 1.1E-03	Chromium 1.4E-03	Manganese 3.8E-04	Nickel 2.1E-03
Potential Emission in tons/yr	6.866E-05	1.510E-04	1.922E-04	5.218E-05	2.884E-04

Methodology is the same as previous page.

The five highest organic and metal HAPs emission factors are provided above.
 Additional HAPs emission factors are available in AP-42, Chapter 1.4.

Appendix A: Emission Calculations
Natural Gas Combustion In Heaters and Ovens

Company Name: LNP Engineering Plastics Inc.
Address City IN Zip: 945 S. Marr Road, Columbus, Indiana 47201
Registration: 005-17704
Pit ID: 005-00049
Reviewer: ERG/AAB
Date: 07/16/03

Heat Input Capacity
MMBtu/hr

Potential Throughput
MMCF/yr

31.4

274.6

Pollutant						
Emission Factor in lb/MMCF	PM*	PM10*	SO2	NO _x	VOC	CO
	7.6	7.6	0.6	100.0	5.5	84.0
				**see below		
Potential Emission in tons/yr						
	1.04	1.04	0.08	13.7	0.76	11.5

*PM emission factor is filterable PM only. PM10 emission factor is condensable and filterable PM10 combined.

**Emission Factors for NO_x: Uncontrolled = 100, Low NO_x Burner = 50, Low NO_x Burners/Flue gas recirculation = 32

Methodology

All Emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF - 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors from AP-42, Chapter 1.4, Tables 1.4-1, 1.4-2, and 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (AP-42 Supplement D 3/98)

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

See next page for HAPs emissions calculations.

Company Name: LNP Engineering Plastics Inc.
Address City IN Zip: 945 S. Marr Road, Columbus, Indiana 47201
Registration: 005-17704
Pit ID: 005-00049
Reviewer: ERG/AAB
Date: 07/16/03

HAPs - Organics

Emission Factor in lb/MMCF	Benzene 2.1E-03	Dichlorobenzene 1.2E-03	Formaldehyde 7.5E-02	Hexane 1.8E+00	Toluene 3.4E-03
Potential Emission in tons/yr	2.884E-04	1.648E-04	1.030E-02	2.472E-01	4.669E-04

HAPs - Metals

Emission Factor in lb/MMCF	Lead 5.0E-04	Cadmium 1.1E-03	Chromium 1.4E-03	Manganese 3.8E-04	Nickel 2.1E-03
Potential Emission in tons/yr	6.866E-05	1.510E-04	1.922E-04	5.218E-05	2.884E-04

Methodology is the same as previous page.

The five highest organic and metal HAPs emission factors are provided above.
 Additional HAPs emission factors are available in AP-42, Chapter 1.4.

Appendix A: Emission Calculations
Natural Gas Combustion In Heaters and Ovens

Company Name: LNP Engineering Plastics Inc.
Address City IN Zip: 945 S. Marr Road, Columbus, Indiana 47201
Registration: 005-17704
Pit ID: 005-00049
Reviewer: ERG/AAB
Date: 07/16/03

Heat Input Capacity
MMBtu/hr

Potential Throughput
MMCF/yr

31.4

274.6

Pollutant						
Emission Factor in lb/MMCF	PM*	PM10*	SO2	NO _x	VOC	CO
	7.6	7.6	0.6	100.0	5.5	84.0
				**see below		
Potential Emission in tons/yr						
	1.04	1.04	0.08	13.7	0.76	11.5

*PM emission factor is filterable PM only. PM10 emission factor is condensable and filterable PM10 combined.

**Emission Factors for NO_x: Uncontrolled = 100, Low NO_x Burner = 50, Low NO_x Burners/Flue gas recirculation = 32

Methodology

All Emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF - 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors from AP-42, Chapter 1.4, Tables 1.4-1, 1.4-2, and 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (AP-42 Supplement D 3/98)

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

See next page for HAPs emissions calculations.

Company Name: LNP Engineering Plastics Inc.
Address City IN Zip: 945 S. Marr Road, Columbus, Indiana 47201
Registration: 005-17704
Pit ID: 005-00049
Reviewer: ERG/AAB
Date: 07/16/03

HAPs - Organics

Emission Factor in lb/MMCF	Benzene 2.1E-03	Dichlorobenzene 1.2E-03	Formaldehyde 7.5E-02	Hexane 1.8E+00	Toluene 3.4E-03
Potential Emission in tons/yr	2.884E-04	1.648E-04	1.030E-02	2.472E-01	4.669E-04

HAPs - Metals

Emission Factor in lb/MMCF	Lead 5.0E-04	Cadmium 1.1E-03	Chromium 1.4E-03	Manganese 3.8E-04	Nickel 2.1E-03
Potential Emission in tons/yr	6.866E-05	1.510E-04	1.922E-04	5.218E-05	2.884E-04

Methodology is the same as previous page.

The five highest organic and metal HAPs emission factors are provided above.
 Additional HAPs emission factors are available in AP-42, Chapter 1.4.